

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-54 (Canceled).

Claim 55 (New): An exposure apparatus that transfers a pattern of a mask onto a substrate by irradiating said mask with exposure light, the exposure apparatus comprising:

a sealed mask room that covers at least an optical path near said mask of the optical path of said mask to said substrate and that is filled with a gas having a characteristic of absorbing little of said exposure light;

a sealed mask-reserve room, which temporarily contains said mask before being carried into said mask room, with at least one door through which said mask is transported;

a gas-replacement system connected to said mask-reserve room that supplies a specific gas to said mask-reserve room; and

a mask cleaning system that removes materials having absorption for exposure light and existing around said mask in said mask-reserve room.

Claim 56 (New): An exposure apparatus according to claim 55, further comprising:

a mask-transport system that transports said mask from said mask-reserve room through said door to said mask room.

Claim 57 (New): An exposure apparatus according to claim 55, wherein

said mask cleaning system includes an energy-beam-emitting portion that irradiates said mask with an energy beam in an ultraviolet range, and said energy beam enters said mask-reserve room.

Claim 58 (New): An exposure apparatus according to claim 57, wherein
a beam source of said energy-beam-emitting portion includes an excimer lamp.

Claim 59 (New): An exposure apparatus according to claim 57, wherein
said gas-replacement system replaces a gas existing in said mask-reserve room with
said specific gas by making said specific gas flow continuously.

Claim 60 (New): An exposure apparatus according to claim 57, wherein
said gas-replacement system includes a pressure-reduction mechanism that is
connected to said mask-reserve room and reduces pressure in said mask-reserve room.

Claim 61 (New): An exposure apparatus according to claim 55, wherein
said exposure light is light having a wavelength not longer than 200nm.

Claim 62 (New): An exposure apparatus according to claim 55, wherein
said specific gas is substantially composed of gases selected from the group consisting
of: nitrogen, argon, helium, neon and krypton.

Claim 63 (New): An exposure apparatus according to claim 55, further comprising:
a substrate room constituted by a sealed room that covers at least an optical path near
a substrate of the optical path of said exposure light from said mask to said substrate and that
is filled with said specific gas.

Claim 64 (New): An exposure apparatus according to claim 63, further comprising:
a substrate-reserve room constituted by a sealed room that is arranged adjacent to said substrate room and that temporarily stores said substrate before being carried into said substrate room; and
a gas-replacement mechanism connected to said substrate-reserve room that replaces gas in said substrate-reserve room with said specific gas.

Claim 65 (New): An exposure apparatus that transfers a pattern of a mask onto a substrate by irradiating said mask with exposure light, the exposure apparatus comprising:
a sealed mask room that covers at least an optical path near said mask of the optical path of said mask to said substrate and that is filled with a gas having a characteristic of absorbing little of said exposure light;
a sealed mask-reserve room, which temporarily contains said mask before being carried into said mask room, with at least one door through which said mask is transported;
a gas-replacement system connected to said mask-reserve room that supplies a specific gas to said mask-reserve room; and
a gas-replacement mechanism in said sealed mask-reserve room that replaces a gas existing in a space between said mask and a pellicle disposed in a vicinity of said mask with said specific gas.

Claim 66 (New): An exposure apparatus according to claim 65, further comprising:
a mask-transport system that transports said mask from said mask-reserve room through said door to said mask room.

Claim 67 (New): An exposure apparatus according to claim 65, wherein
said gas-replacement mechanism replaces said gas through gas vents on a pellicle-
frame disposed in between said mask and said pellicle.

Claim 68 (New): An exposure apparatus according to claim 67, wherein
said gas-replacement mechanism spends a time of not less than 10 seconds in
performing said gas replacement.

Claim 69 (New): An exposure apparatus according to claim 67, wherein
said mask cleaning system includes a pressure-reduction mechanism that reduces
pressure in said mask-reserve room.

Claim 70 (New): An exposure apparatus according to claim 65, wherein
in a chamber constituting said mask-reserve room, a delivery port is provided into and
from which a sealed-type mask container containing said mask and having a door that can be
opened and closed is loaded and unloaded, and
in said mask-reserve room, an open-close mechanism is provided that opens and
closes the door of said mask container to isolate the inside of said mask-reserve room from
the outside.

Claim 71 (New): An exposure apparatus according to claim 70, wherein
said mask container is a bottom-open-type mask container on the bottom of which
said door is provided.

Claim 72 (New): An exposure apparatus according to claim 65, wherein said exposure light is light having a wavelength not longer than 200nm.

Claim 73 (New): An exposure apparatus according to claim 65, wherein said specific gas is substantially composed of gases selected from the group consisting of: nitrogen, argon, helium, neon and krypton.

Claim 74 (New): An exposure apparatus according to claim 65, further comprising: a substrate room constituted by a sealed room that covers at least an optical path near a substrate of the optical path of said exposure light from said mask to said substrate and that is filled with said specific gas.

Claim 75 (New): An exposure apparatus according to claim 74, further comprising: a substrate-reserve room constituted by a sealed room that is arranged adjacent to said substrate room and that temporarily stores said substrate before being carried into said substrate room; and a gas-replacement mechanism connected to said substrate-reserve room that replaces gas in said substrate-reserve room with said specific gas.

Claim 76 (New): An exposure method that transfers a pattern of a mask onto a substrate by irradiating said mask with exposure light, the exposure method comprising: filling a sealed space that covers at least an optical path near said mask of the optical path of said exposure light from said mask to said substrate with a gas having a characteristic of absorbing little of said exposure light;

temporarily storing said mask in a reserve room before carrying said mask into said sealed space;

replacing gas in said reserve room, in which said mask is existing, with said low absorbent gas, and cleaning said mask in said reserve room to remove materials having absorption for exposure light and existing around said mask; and

transporting said mask to a predetermined position in said sealed space and transferring said pattern onto said substrate.

Claim 77 (New): An exposure method according to claim 76, wherein said cleaning of mask is performed by irradiating a beam in an ultraviolet range to said mask.

Claim 78 (New): An exposure method according to claim 76, wherein said gas-replacement is performed by continuous flow of said specific gas.

Claim 79 (New): An exposure method according to claim 76, wherein said mask cleaning is performed by reduction of pressure of said mask-reserve room.

Claim 80 (New): An exposure method according to claim 76, wherein said exposure light is light having a wavelength not longer than 200nm.

Claim 81 (New): An exposure method according to claim 76, wherein said specific gas is substantially composed of gases selected from the group consisting of: nitrogen, argon, helium, neon and krypton.

Claim 82 (New): An exposure method that transfers a pattern of a mask onto a substrate by irradiating said mask with exposure light, the exposure method comprising:

filling a sealed space that covers at least an optical path near said mask of the optical path of said exposure light from said mask to said substrate with a gas having a characteristic of absorbing little of said exposure light;

temporarily storing said mask in a reserve room before carrying said mask into said sealed space;

replacing gas in said reserve room, in which said mask is existing, with said low absorbent gas;

replacing gas in a space between said mask and a pellicle disposed in the vicinity of said mask with said low absorbent gas; and

transporting said mask to a predetermined position in said sealed space and transferring said pattern onto said substrate.

Claim 83 (New): An exposure method according to claim 82, wherein said gas replacement of said space between said mask and said pellicle is performed through gas vents on a pellicle-frame disposed in between said mask and said pellicle.

Claim 84 (New): An exposure method according to claim 83, wherein said gas replacement of said space between said mask and said pellicle spends time not less than 10 seconds.

Claim 85 (New): An exposure method according to claim 82, wherein

said mask is transported to said reserve room within a sealed-type mask container having a door that can be opened and closed, and said mask container is opened and closed by an open-close mechanism provided by said reserve room.

Claim 86 (New): An exposure method according to claim 85, wherein
said mask container is a bottom-open-type mask container on a bottom of which said door is provided.

Claim 87 (New): An exposure method according to claim 82, wherein
said exposure light is light having a wavelength not longer than 200nm.

Claim 88 (New): An exposure method according to claim 82,
wherein said specific gas is substantially composed of gases selected from the group consisting of: nitrogen, argon, helium, neon and krypton.

Claim 89 (New): A device manufacturing method including a lithographic process,
wherein
in said lithographic process, exposure is performed using an exposure method according to claim 76.

Claim 90 (New): A device manufacturing method including a lithographic process,
wherein
in said lithographic process, exposure is performed using an exposure method according to claim 82.